

Abstract

1 indicates the rotating point of the eyeball, 2 indicates the first eye position, 3 indicates the second eye position, and 4 indicates the third eye position. The lines indicated by thick lines at the respective eye positions are the horizontal meridian and vertical meridian (principal meridian) of the cornea. As is seen from the figure, the directions of the horizontal meridian and vertical meridian of the cornea at the third eye position 4, in particular, do not coincide with the directions of the horizontal meridian and vertical meridian at the first eye position 1. In the present means, in order to perform aberration correction of the ophthalmic lens not only in the first eye position and second eye position but also in the third eye position under conditions that are suited to the prescription of the user and conditions of use, the prescription surface is made aspherical while taking into account the astigmatic axis of the eye at arbitrary eye positions in accordance with the laws of Donders-Listing. As a result, the prescription surface can be designed so that favorable optical characteristics can be obtained in the case of various specifications involving individual information such as the prescription of the ophthalmic lens user.

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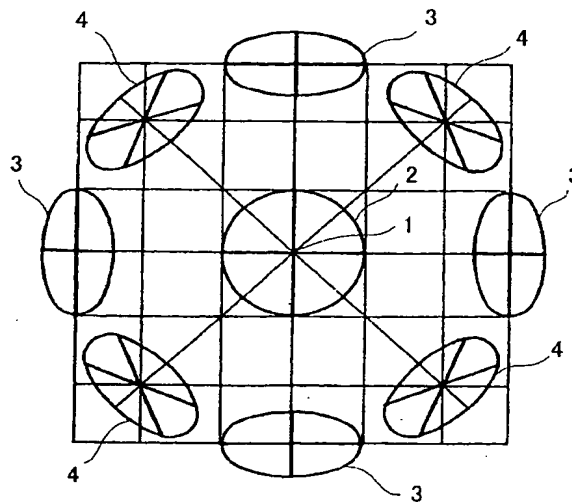
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(54) Title: GLASSES LENS DESIGNING METHOD, PRODUCTION METHOD FOR GLASSES LENS AND COMPUTER PROGRAM

(54) 発明の名称: 眼鏡レンズの設計方法、眼鏡レンズの製造方法及び計算機プログラム



(57) Abstract: (1) indicates the turning point of an eyeball, (2) a first eye position, (3) a second eye position, and (4) a third eye position, with thick lines in each eye position representing the horizontal meridian and the vertical meridian (main meridian) of a cornea. The horizontal meridian and vertical meridian directions of the eye's cornea in the third position (4) do not agree with horizontal meridian and vertical meridian directions in the first eye position (1). In order to correct the aberration of a glasses lens not only in the first and second eye positions but in the third eye position, a prescription surface is formed into an aspherical shape according to the Donder's/Listing's law and allowing for the astigmatism axis of an eye in an arbitrary position. Accordingly, prescription surfaces can be designed so as to provide a satisfactory optical performance in various specifications.

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